

§ 148.130

§ 148.130 Stowage and segregation for materials of Class 4.2.

(a) Class 4.2 materials listed in Table 148.10 of this part must—

(1) Be kept as cool and dry as practical before loading;

(2) Not be loaded or transferred between vessels during periods of rain or snow;

(3) Be stowed clear of sources of heat and ignition and protected from sparks and open flame; and

(4) Except for copra and seed cake, be stowed separate from foodstuffs.

(b) The bulkhead between a hold containing a Class 4.2 material and a hold containing a material not permitted to mix with Class 4.2 materials must have cable and conduit penetrations sealed against the passage of gas and vapor.

§ 148.135 Stowage and segregation for materials of Class 4.3.

(a) Class 4.3 materials listed in Table 148.10 of this part which, in contact with water, emit flammable gases, must—

(1) Be kept as cool and dry as practical before loading;

(2) Not be loaded or transferred between vessels during periods of rain or snow;

(3) Be stowed separate from foodstuffs and all Class 8 liquids; and

(4) Be stowed in a mechanically ventilated hold. Exhaust gases must not penetrate into accommodation, work or control spaces. Unmanned barges that have adequate natural ventilation need not have mechanical ventilation.

(b) The bulkhead between a hold containing a Class 4.3 material and incompatible materials must have cable and conduit penetrations sealed against the passage of gas and vapor.

§ 148.140 Stowage and segregation for materials of Class 5.1.

(a) Class 5.1 materials listed in Table 148.10 of this part must—

(1) Be kept as cool and dry as practical before loading;

(2) Be stowed away from all sources of heat or ignition; and

(3) Be stowed separate from foodstuffs and all readily combustible materials.

(b) Special care must be taken to ensure that holds containing Class 5.1

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materials are clean and, whenever practical, only noncombustible securing and protecting materials are used.

(c) Class 5.1 materials must be prevented from entering bilges or other cargo holds.

§ 148.145 Stowage and segregation for materials of Class 7.

(a) Class 7 material listed in Table 148.10 of this part must be stowed—

(1) Separate from foodstuffs; and

(2) In a hold or barge closed or covered to prevent dispersal of the material during transportation.

(b) [Reserved]

§ 148.150 Stowage and segregation for materials of Class 9.

(a) A bulk solid cargo of Class 9 material (miscellaneous hazardous material) listed in Table 148.10 of this part must be stowed and segregated as required by this section.

(b) Ammonium nitrate fertilizer of Class 9 must be segregated as required for Class 5.1 materials in §§148.120 and 148.140 of this part and must be stowed—

(1) Separated by a complete hold or compartment from readily combustible materials, chlorates, hypochlorites, nitrites, permanganates, and fibrous materials (*e.g.*, cotton, jute, sisal, *etc.*);

(2) Clear of all sources of heat, including insulated piping; and

(3) Out of direct contact with metal engine-room boundaries.

(c) Castor beans must be stowed separate from foodstuffs and Class 5.1 materials.

(d) Fish meal must be stowed and segregated as required for Class 4.2 materials in §§148.120 and 148.130 of this part. In addition, its temperature at loading must not exceed 35 °C (95 °F), or 5 °C (9 °F) above ambient temperature, whichever is higher.

(e) Sulfur must be stowed and segregated as required under §§148.120 and 148.125 of this part for a material of Class 4.1.

§ 148.155 Stowage and segregation for potentially dangerous materials.

(a) A PDM must be stowed and segregated according to the requirements of this section and Table 148.155 of this section.

(b) When transporting coal—

(1) Coal must be stowed separate from materials of Class/division 1.4 and Classes 2, 3, 4, and 5 in packaged form; and separated from bulk solid materials of Classes 4 and 5.1;

(2) No material of Class 5.1, in either packaged or bulk solid form, may be stowed above or below a cargo of coal; and

(3) Coal must be separated longitudinally by an intervening complete cargo compartment or hold from materials of Class 1 other than Class/division 1.4.

(c) When transporting direct reduced iron (DRI)—

(1) DRI lumps, pellets, or cold-molded briquettes, and DRI hot-molded bri-

quettes, must be separated from materials of Class/division 1.4, Classes 2, 3, 4, 5, Class 8 acids in packaged form, and bulk solid materials of Classes 4 and 5.1; and

(2) No material of Class 1, other than Class/division 1.4, may be transported on the same vessel with DRI.

(d) Petroleum coke, calcined or uncalcined, must be—

(1) Separated longitudinally by an intervening complete cargo compartment or hold from materials of Class/divisions 1.1 and 1.5; and

(2) Separated by a complete cargo compartment or hold from all hazardous materials and other potentially dangerous materials in packaged and bulk solid form.

TABLE 148.155—STOWAGE AND SEGREGATION REQUIREMENTS FOR POTENTIALLY DANGEROUS MATERIAL

Potentially dangerous material	Segregate as for class listed ¹	"Separate from" food-stuffs	Load only under dry weather conditions	Keep dry	Mechanical ventilation required	"Separate from" material listed	Special provisions
Aluminum Smelting By-products or Aluminum Remelting By-products.	4.3	X	X	X	X	Class 8 liquids	
Brown Coal Briquettes.	.....	.....	.....	.....	.....	See paragraph (b) of this section.	See paragraph (b) of this section.
Charcoal	4.1	.....	.....	X	.....	Oily materials	
Coal .....	.....	.....	.....	.....	.....	See paragraph (b) of this section.	See paragraph (b) of this section.
Direct reduced iron (A).	.....	.....	.....	.....	.....	See paragraph (c) of this section.	See paragraph (c) of this section.
Direct reduced iron (B).	.....	.....	.....	.....	.....	See paragraph (c) of this section.	See paragraph (c) of this section.
Ferrophosphorus.	4.3	X	X	X	X	Class 8 liquids	
Ferrollicon	4.3	X	X	X	X	Class 8 liquids	
Fluorospar .....	.....	X	.....	.....	.....	Class 8 liquids	
Lime, Unslaked	.....	.....	.....	X	.....	All packaged and bulk solid hazardous materials.	
Linted Cotton Seed.	.....	.....	.....	X	.....	
Magnesia, Unslaked.	.....	.....	.....	.....	.....	All packaged and bulk solid hazardous materials.	
Metal Sulfide Concentrates.	4.2	X	.....	.....	.....	Class 8 liquids	
Petroleum Coke	.....	X	.....	.....	.....		See section 148.155(d).
Pitch Prill	4.1	.....	.....	.....	.....
Pyrites, Calcined.	.....	X	X	X	X		
Sawdust	4.1	.....	.....	X	.....	All Class 5.1 and 8 liquids.	

TABLE 148.155—STOWAGE AND SEGREGATION REQUIREMENTS FOR POTENTIALLY DANGEROUS MATERIAL—Continued

Potentially dangerous material	Segregate as for class listed ¹	“Separate from” food-stuffs	Load only under dry weather conditions	Keep dry	Mechanical ventilation required	“Separate from” material listed	Special provisions
Silicomanganese.	4.3	X	X	X	X	Class 8 liquids	
Tankage	4.2	X	X	.....	.....
Vanadium	6.1	X	.....	.....	.....
Wood chips	4.1	.....	.....	.....	.....
Wood pellets	4.1	.....	.....	.....	.....
Wood pulp pellets.	4.1	.....	.....	.....	.....

¹ See Tables 148.120A and B.

Subpart E—Special Requirements for Certain Materials

§ 148.200 Purpose.

This subpart prescribes special requirements for specific materials. These requirements are in addition to the minimum transportation requirements in Subpart C of this part that are applicable to all materials listed in Table 148.10 of this part.

§ 148.205 Ammonium nitrate and ammonium nitrate fertilizers.

(a) This section applies to the stowage and transportation in bulk of ammonium nitrate and the following fertilizers composed of uniform, non-segregating mixtures containing ammonium nitrate:

(1) Ammonium nitrate containing added organic matter that is chemically inert towards the ammonium nitrate; containing at least 90 percent ammonium nitrate and a maximum of 0.2 percent of combustible material (including organic material calculated as carbon); or containing less than 90 percent but more than 70 percent of ammonium nitrate and a maximum of 0.4 percent combustible material;

(2) Ammonium nitrate with calcium carbonate and/or dolomite, containing more than 80 percent but less than 90 percent of ammonium nitrate and a maximum of 0.4 percent of total combustible material;

(3) Ammonium nitrate with ammonium sulfate containing more than 45 percent but a maximum of 70 percent of ammonium nitrate and containing a maximum of 0.4 percent of combustible material; and

(4) Nitrogen phosphate or nitrogen/potash type fertilizers or complete nitrogen/phosphate/potash type fertilizers containing more than 70 percent but less than 90 percent of ammonium nitrate and a maximum of 0.4 percent of combustible material.

(b) No material covered by this section may be transported in bulk unless it demonstrates resistance to detonation when tested by one of the following methods:

(1) Appendix 2, Section 5, of the IMSBC Code (incorporated by reference, see § 148.8);

(2) Test series 1 and 2 of the Class 1 (explosive) in the UN Manual of Tests and Criteria, Part I (incorporated by reference, see § 148.8); or

(3) An equivalent test satisfactory to the Administration of the country of shipment.

(c) Before loading a material covered by this section—

(1) The shipper must give the master of the vessel written certification that the material has met the test requirements of paragraph (b) of this section;

(2) The cargo hold must be inspected for cleanliness and free from readily combustible materials;

(3) Each cargo hatch must be weathertight as defined in § 42.13–10 of this chapter;

(4) The temperature of the material must be less than 55 °C (131 °F); and

(5) Each fuel tank under a cargo hold where the material is stowed must be pressure tested before loading to ensure that there is no leakage of manholes or piping systems leading through the cargo hold.